Release notes for ENDF/B Development n-036_Kr_086 evaluation

April 26, 2017

- **checkr** Warnings:

  1. A previous error halted parsing of the current section
     MAT=3649, MF= 1, MT=451 (1): Parsing stopped

     ```
     ERROR(S) FOUND IN MAT=3649, MF= 1, MT=451
         SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER      231 TO     277
     ```

- **checkr** Errors:

  1. A variable is outside the allowed ENDF range
     MAT=3649, MF= 1, MT=451 (0): Variable range

     ```
     ERROR(S) FOUND IN MAT=3649, MF= 1, MT=451
         MOD =    1 OUT OF RANGE    0 -    0           RECORD NUMBER    231
     ```

  2. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=3649, MF= 2, MT=151 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=3649, MF= 2, MT=151
         SECTION  2/151 NOT IN DIRECTORY              RECORD NUMBER    279
     ```

  3. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=3649, MF= 3, MT= 1 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=3649, MF= 3, MT=  1
         SECTION  3/  1 NOT IN DIRECTORY              RECORD NUMBER    492
     ```

  4. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=3649, MF= 3, MT= 2 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=3649, MF= 3, MT=  2
         SECTION  3/  2 NOT IN DIRECTORY              RECORD NUMBER    516
     ```

  5. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=3649, MF= 3, MT= 4 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=3649, MF= 3, MT=  4
         SECTION  3/  4 NOT IN DIRECTORY              RECORD NUMBER    540
     ```

  6. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=3649, MF= 3, MT= 16 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 16
         SECTION  3/ 16 NOT IN DIRECTORY              RECORD NUMBER    553
     ```

  7. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=3649, MF= 3, MT= 17 (0): Directory (b)

1

```
      ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 17
         SECTION  3/ 17 NOT IN DIRECTORY                    RECORD NUMBER     564
```

8. Missing a section in directory so your directory is messed up. This error will break everything else
   $MAT=3649$, $MF= 3$, $MT= 22$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 22
         SECTION  3/ 22 NOT IN DIRECTORY                    RECORD NUMBER     571
```

9. Missing a section in directory so your directory is messed up. This error will break everything else
   $MAT=3649$, $MF= 3$, $MT= 28$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 28
         SECTION  3/ 28 NOT IN DIRECTORY                    RECORD NUMBER     583
```

10. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF= 3$, $MT= 51$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 51
         SECTION  3/ 51 NOT IN DIRECTORY                    RECORD NUMBER     593
```

11. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF= 3$, $MT= 52$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 52
         SECTION  3/ 52 NOT IN DIRECTORY                    RECORD NUMBER     606
```

12. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF= 3$, $MT= 53$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 53
         SECTION  3/ 53 NOT IN DIRECTORY                    RECORD NUMBER     618
```

13. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF= 3$, $MT= 54$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 54
         SECTION  3/ 54 NOT IN DIRECTORY                    RECORD NUMBER     630
```

14. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF= 3$, $MT= 55$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 55
         SECTION  3/ 55 NOT IN DIRECTORY                    RECORD NUMBER     642
```

15. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF= 3$, $MT= 56$ (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 56
          SECTION  3/ 56 NOT IN DIRECTORY                RECORD NUMBER     653
```

16. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF=3$, $MT=57$ (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 57
          SECTION  3/ 57 NOT IN DIRECTORY                RECORD NUMBER     664
```

17. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF=3$, $MT=58$ (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 58
          SECTION  3/ 58 NOT IN DIRECTORY                RECORD NUMBER     674
```

18. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF=3$, $MT=59$ (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 59
          SECTION  3/ 59 NOT IN DIRECTORY                RECORD NUMBER     684
```

19. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF=3$, $MT=60$ (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 60
          SECTION  3/ 60 NOT IN DIRECTORY                RECORD NUMBER     694
```

20. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF=3$, $MT=91$ (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=3649, MF= 3, MT= 91
          SECTION  3/ 91 NOT IN DIRECTORY                RECORD NUMBER     703
```

21. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF=3$, $MT=102$ (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=3649, MF= 3, MT=102
          SECTION  3/102 NOT IN DIRECTORY                RECORD NUMBER     712
```

22. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF=3$, $MT=103$ (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=3649, MF= 3, MT=103
          SECTION  3/103 NOT IN DIRECTORY                RECORD NUMBER     731
```

23. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=3649$, $MF=3$, $MT=104$ (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=3649, MF= 3, MT=104
            SECTION  3/104 NOT IN DIRECTORY                    RECORD NUMBER     744
```

24. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 3, MT=105 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=3649, MF= 3, MT=105
            SECTION  3/105 NOT IN DIRECTORY                    RECORD NUMBER     755
```

25. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 3, MT=107 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=3649, MF= 3, MT=107
            SECTION  3/107 NOT IN DIRECTORY                    RECORD NUMBER     764
```

26. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 2 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=3649, MF= 4, MT=  2
            SECTION  4/  2 NOT IN DIRECTORY                    RECORD NUMBER     780
```

27. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 16 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 16
            SECTION  4/ 16 NOT IN DIRECTORY                    RECORD NUMBER     948
```

28. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 17 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 17
            SECTION  4/ 17 NOT IN DIRECTORY                    RECORD NUMBER     959
```

29. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 22 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 22
            SECTION  4/ 22 NOT IN DIRECTORY                    RECORD NUMBER     970
```

30. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 28 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 28
            SECTION  4/ 28 NOT IN DIRECTORY                    RECORD NUMBER     981
```

31. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 51 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 51
         SECTION  4/ 51 NOT IN DIRECTORY                RECORD NUMBER     992
```

32. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 52 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 52
         SECTION  4/ 52 NOT IN DIRECTORY                RECORD NUMBER    1015
```

33. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 53 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 53
         SECTION  4/ 53 NOT IN DIRECTORY                RECORD NUMBER    1038
```

34. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 54 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 54
         SECTION  4/ 54 NOT IN DIRECTORY                RECORD NUMBER    1061
```

35. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 55 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 55
         SECTION  4/ 55 NOT IN DIRECTORY                RECORD NUMBER    1084
```

36. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 56 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 56
         SECTION  4/ 56 NOT IN DIRECTORY                RECORD NUMBER    1107
```

37. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 57 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 57
         SECTION  4/ 57 NOT IN DIRECTORY                RECORD NUMBER    1130
```

38. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 58 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 58
         SECTION  4/ 58 NOT IN DIRECTORY                RECORD NUMBER    1153
```

39. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 59 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 59
         SECTION  4/ 59 NOT IN DIRECTORY                RECORD NUMBER    1176
```

40. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 60 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 60
         SECTION  4/ 60 NOT IN DIRECTORY                RECORD NUMBER    1199
```

41. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 4, MT= 91 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 4, MT= 91
         SECTION  4/ 91 NOT IN DIRECTORY                RECORD NUMBER    1222
```

42. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 5, MT= 16 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 5, MT= 16
         SECTION  5/ 16 NOT IN DIRECTORY                RECORD NUMBER    1246
```

43. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 5, MT= 17 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 5, MT= 17
         SECTION  5/ 17 NOT IN DIRECTORY                RECORD NUMBER    1291
```

44. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 5, MT= 22 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 5, MT= 22
         SECTION  5/ 22 NOT IN DIRECTORY                RECORD NUMBER    1315
```

45. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 5, MT= 28 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 5, MT= 28
         SECTION  5/ 28 NOT IN DIRECTORY                RECORD NUMBER    1421
```

46. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=3649, MF= 5, MT= 91 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=3649, MF= 5, MT= 91
         SECTION  5/ 91 NOT IN DIRECTORY                RECORD NUMBER    1478
```

- `psyche` Warnings:

  1. Gamma width not in agreement with PSYCHE's expectations
     FILE 2 / SECTION 151 / ISOTOPE MASS = 86.   L = 1 / AT RESONANCE ENERGY 6.85700E+04 EV. THE GAMMA WIDTH 7.50000E-02 DEVIATES TOO MUCH FROM THE AVERAGE 2.55110E-01 (0): Gamma width

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  1
                  AT RESONANCE ENERGY  6.85700E+04 EV. THE GAMMA WIDTH  7.50000E-02 DEVIATES TOO MUCH FROM THE AV
```

2. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86.   L = 1 / AT RESONANCE
ENERGY 1.77910E+05 EV. THE GAMMA WIDTH 7.65000E-02 DEVIATES TOO
MUCH FROM THE AVERAGE 2.55110E-01 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  1
                  AT RESONANCE ENERGY  1.77910E+05 EV. THE GAMMA WIDTH  7.65000E-02 DEVIATES TOO MUCH FROM THE AV
```

3. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86.   L = 2 / AT RESONANCE
ENERGY 8.81600E+04 EV. THE GAMMA WIDTH 1.29000E-01 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  8.81600E+04 EV. THE GAMMA WIDTH  1.29000E-01 DEVIATES TOO MUCH FROM THE AV
```

4. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86.   L = 2 / AT RESONANCE
ENERGY 1.24830E+05 EV. THE GAMMA WIDTH 3.95000E-01 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  1.24830E+05 EV. THE GAMMA WIDTH  3.95000E-01 DEVIATES TOO MUCH FROM THE AV
```

5. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86.   L = 2 / AT RESONANCE
ENERGY 2.67600E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  2.67600E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

6. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86.   L = 2 / AT RESONANCE
ENERGY 2.86800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  2.86800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

7. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86.   L = 2 / AT RESONANCE

ENERGY 3.09700E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
               AT RESONANCE ENERGY  3.09700E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

8. Gamma width not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
   ENERGY 3.17100E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
   MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
               AT RESONANCE ENERGY  3.17100E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

9. Gamma width not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
   ENERGY 3.65600E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
   MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
               AT RESONANCE ENERGY  3.65600E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

10. Gamma width not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
    ENERGY 3.66800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
    MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
               AT RESONANCE ENERGY  3.66800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

11. Gamma width not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
    ENERGY 3.93000E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
    MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
               AT RESONANCE ENERGY  3.93000E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

12. Gamma width not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
    ENERGY 3.97600E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
    MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
               AT RESONANCE ENERGY  3.97600E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

13. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 4.15600E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
            AT RESONANCE ENERGY  4.15600E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

14. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 4.34500E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
            AT RESONANCE ENERGY  4.34500E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

15. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 4.41800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
            AT RESONANCE ENERGY  4.41800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

16. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 4.48600E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
            AT RESONANCE ENERGY  4.48600E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

17. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 4.66900E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
            AT RESONANCE ENERGY  4.66900E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

18. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 4.81800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                AT RESONANCE ENERGY  4.81800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

19. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 4.98900E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                AT RESONANCE ENERGY  4.98900E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

20. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 5.06500E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                AT RESONANCE ENERGY  5.06500E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

21. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 5.26100E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                AT RESONANCE ENERGY  5.26100E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

22. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 5.32200E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                AT RESONANCE ENERGY  5.32200E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

23. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 5.33200E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                AT RESONANCE ENERGY  5.33200E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

24. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE

ENERGY 5.46000E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
      FILE  2
         SECTION 151
            ISOTOPE MASS =  86. L =  2
                     AT RESONANCE ENERGY  5.46000E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

25. Gamma width not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
    ENERGY 5.47900E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
    MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
      FILE  2
         SECTION 151
            ISOTOPE MASS =  86. L =  2
                     AT RESONANCE ENERGY  5.47900E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

26. Gamma width not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
    ENERGY 5.93300E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
    MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
      FILE  2
         SECTION 151
            ISOTOPE MASS =  86. L =  2
                     AT RESONANCE ENERGY  5.93300E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

27. Gamma width not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
    ENERGY 5.95200E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
    MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
      FILE  2
         SECTION 151
            ISOTOPE MASS =  86. L =  2
                     AT RESONANCE ENERGY  5.95200E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

28. Gamma width not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
    ENERGY 6.19000E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
    MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
      FILE  2
         SECTION 151
            ISOTOPE MASS =  86. L =  2
                     AT RESONANCE ENERGY  6.19000E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

29. Gamma width not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
    ENERGY 6.26100E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
    MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
      FILE  2
         SECTION 151
            ISOTOPE MASS =  86. L =  2
                     AT RESONANCE ENERGY  6.26100E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

30. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 6.48000E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  6.48000E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

31. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 6.80700E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  6.80700E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

32. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 6.86300E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  6.86300E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

33. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 6.94300E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  6.94300E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

34. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 7.12800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  7.12800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

35. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 7.18800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                    AT RESONANCE ENERGY  7.18800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

36. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 7.26400E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                    AT RESONANCE ENERGY  7.26400E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

37. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 7.30400E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                    AT RESONANCE ENERGY  7.30400E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

38. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 7.36200E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                    AT RESONANCE ENERGY  7.36200E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

39. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 7.52500E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                    AT RESONANCE ENERGY  7.52500E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

40. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 7.87200E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE   2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                    AT RESONANCE ENERGY  7.87200E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

41. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE

13

ENERGY 8.29800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  8.29800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

42. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 8.32000E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  8.32000E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

43. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 8.43000E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  8.43000E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

44. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 8.52800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  8.52800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

45. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 8.68500E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  8.68500E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

46. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 8.75000E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                  AT RESONANCE ENERGY  8.75000E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

47. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 8.77800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
    FILE  2
       SECTION 151
           ISOTOPE MASS =  86. L =  2
                      AT RESONANCE ENERGY  8.77800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

48. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 8.80300E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
    FILE  2
       SECTION 151
           ISOTOPE MASS =  86. L =  2
                      AT RESONANCE ENERGY  8.80300E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

49. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 8.98000E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
    FILE  2
       SECTION 151
           ISOTOPE MASS =  86. L =  2
                      AT RESONANCE ENERGY  8.98000E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

50. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 9.02500E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
    FILE  2
       SECTION 151
           ISOTOPE MASS =  86. L =  2
                      AT RESONANCE ENERGY  9.02500E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

51. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 9.05300E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
    FILE  2
       SECTION 151
           ISOTOPE MASS =  86. L =  2
                      AT RESONANCE ENERGY  9.05300E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

52. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 9.08600E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

15

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  9.08600E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

53. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 9.13600E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  9.13600E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

54. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 9.14900E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  9.14900E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

55. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 9.18800E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  9.18800E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

56. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 9.24600E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  9.24600E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

57. Gamma width not in agreement with PSYCHE's expectations
*FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE
ENERGY 9.32300E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO
MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width*

```
FILE  2
   SECTION 151
      ISOTOPE MASS =  86. L =  2
                 AT RESONANCE ENERGY  9.32300E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

58. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE

ENERGY 9.34200E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
         FILE  2
            SECTION 151
               ISOTOPE MASS =  86. L =  2
                       AT RESONANCE ENERGY  9.34200E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

59. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 9.38900E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
         FILE  2
            SECTION 151
               ISOTOPE MASS =  86. L =  2
                       AT RESONANCE ENERGY  9.38900E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

60. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 9.41000E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
         FILE  2
            SECTION 151
               ISOTOPE MASS =  86. L =  2
                       AT RESONANCE ENERGY  9.41000E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

61. Gamma width not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / AT RESONANCE ENERGY 9.46500E+05 EV. THE GAMMA WIDTH 1.00000E-03 DEVIATES TOO MUCH FROM THE AVERAGE 9.84745E-03 (0): Gamma width

```
         FILE  2
            SECTION 151
               ISOTOPE MASS =  86. L =  2
                       AT RESONANCE ENERGY  9.46500E+05 EV. THE GAMMA WIDTH  1.00000E-03 DEVIATES TOO MUCH FROM THE AV
```

62. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ISOTOPE MASS = 86. L = 2 / STRENGTH FUNCTION IS 8.40513E-05 / AVERAGE GAMMA WIDTH 9.84745E-03 / LIES OUTSIDE LIMITS 4.00000E-02 TO 9.00000E+00 EV. (0): URR str. ftn.

```
         FILE  2
            SECTION 151
               ISOTOPE MASS =  86. L =  2
                       STRENGTH FUNCTION IS  8.40513E-05
                               AVERAGE GAMMA WIDTH 9.84745E-03
         ... [1 more lines]
```

- `fudge-4.0` Warnings:

  1. Missing a channel with a particular angular momenta combination
  resonances / resolved / MultiLevel_BreitWigner (Error # 0): missingResonanceChannel

17

```
        WARNING: Missing a channel with angular momenta combination L = 0, J = 1.5 and S = 1.5 for "capture"
        WARNING: Missing a channel with angular momenta combination L = 1, J = 0.5 and S = 1.5 for "capture"
        WARNING: Missing a channel with angular momenta combination L = 1, J = 1.5 and S = 1.5 for "capture"
        WARNING: Missing a channel with angular momenta combination L = 1, J = 2.5 and S = 1.5 for "capture"
                ... plus 4 more instances of this message
```

2. Potential scattering hasn't converted, you need more L's!
   resonances / resolved (Error # 1): potentialScatteringNotConverged

```
        WARNING: Potential scattering hasn't converged by L=2 at E=950000.0 eV, xs[2]/xs[0]=0.182557918427% > 0.1%
```

3. Cross section does not match sum of linked reaction cross sections
   crossSectionSum label 0: total (Error # 0): CS Sum.

```
        WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.27%
```

- `fudge-4.0` Errors:

  1. Calculated and tabulated Q values disagree.
     reaction label 12: n[multiplicity:'2'] + Kr85 (Error # 0): Q mismatch

```
        WARNING: Calculated and tabulated Q-values disagree: -9854130.567047119 eV vs -9867290. eV!
```

  2. Calculated and tabulated Q values disagree.
     reaction label 14: n + H1 + Br85 (Error # 0): Q mismatch

```
        WARNING: Calculated and tabulated Q-values disagree: -11941784.15460205 eV vs -1.18866e7 eV!
```

  3. Calculated and tabulated Q values disagree.
     reaction label 17: H1 + Br86_s (Error # 0): Q mismatch

```
        WARNING: Calculated and tabulated Q-values disagree: -6841163.320953369 eV vs -6520520. eV!
```

  4. Calculated and tabulated Q values disagree.
     reaction label 18: H2 + Br85_s (Error # 0): Q mismatch

```
        WARNING: Calculated and tabulated Q-values disagree: -9717218.053665161 eV vs -9576510. eV!
```

  5. Calculated and tabulated Q values disagree.
     reaction label 19: H3 + Br84_s (Error # 0): Q mismatch

```
        WARNING: Calculated and tabulated Q-values disagree: -12342234.24649048 eV vs -1.23785e7 eV!
```

  6. Calculated and tabulated Q values disagree.
     reaction label 20: He4 + Se83_s (Error # 0): Q mismatch

```
        WARNING: Calculated and tabulated Q-values disagree: -2276020.987487793 eV vs -2198780. eV!
```

- `njoy2012` Warnings:

  1. Evaluation has no unresolved resonance parameters given
     unresr...calculation of unresolved resonance cross sections (0): No URR

```
        ---message from unresr---mat 3649 has no unresolved parameters
                          copy as is to nout
```

2. Evaluation has no unresolved resonance parameters given
   purr...probabalistic unresolved calculation (0): No URR

   ```
    ---message from purr---mat 3649 has no unresolved parameters
                            copy as is to nout
   ```

3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)

   ```
    ---message from conver---cannot do complete particle production for mt= 16
                            only mf4/mf5 provided
   ```

4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)

   ```
    ---message from conver---cannot do complete particle production for mt= 17
                            only mf4/mf5 provided
   ```

5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)

   ```
    ---message from conver---cannot do complete particle production for mt= 22
                            only mf4/mf5 provided
   ```

6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)

   ```
    ---message from conver---cannot do complete particle production for mt= 28
                            only mf4/mf5 provided
   ```

7. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (4): GROUPR/conver (0)

   ```
    ---message from conver---cannot do complete particle production for mt= 91
                            only mf4/mf5 provided
   ```

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